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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,861	05/09/2006	Jean-Loic Selo	4702-34	5317

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EXAMINER

TESKIN, FRED M

ART UNIT	PAPER NUMBER
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1713

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/563,861

Applicant(s)

SELO

Examiner

Fred M. Teskin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 5-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20060109</u> . | 6) <input type="checkbox"/> Other: ____ |

The preliminary amendment of January 9, 2006 has been entered. Claims 5-10 are currently pending and under examination herein.

The disclosure is objected to because of the following informalities:

At page 4, lines 13-14 the reference to figure 7 "for a 940/4.8 density/melt index couple" appears incorrect, in that the highest melt index recorded in Figs. 7A-C is 4.0. The cited couple is found, however, in Fig. 6B. Appropriate correction is required.

Claims 5-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5-10 lack clarity as to the meaning and significance "RTSE value," as the term "RTSE" is not defined in the claims or the antecedent disclosure. Clarification at least by way of explanation is required.

Claim 6 contains the phrase "the one identified in above step 5 (i.e. the temperature corresponding to a RTSE value of 4.4 for the d and MI values of the polyethylene powder to be produced)". It is unclear whether the parenthetical expression is merely redundant to the preceding text or further restrictive thereto. If the former is in fact the case, the expression is superfluous and should be deleted. Clarification and appropriate correction are required.

Regarding claims 9 and 10, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is

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considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 9 and 10 each recite the broad recitation "at least 95°C", and each claim also recites "preferably at least 100°C," which is the narrower statement of the range/limitation.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 4532311 (Fulks et al).

Fulks et al disclose a process for the (co)polymerization of ethylene in a gas phase, fluidized bed reactor, wherein the reaction zone includes a growing polymer particles (col. 5, ll. 32+); in Example 1, reactor operating conditions designed to produce an ethylene copolymer having a density of 0.918 and a melt index (MI) of 1.0 are detailed. More specifically, in this example the density and melt index of the polyethylene to be produced are determined and, *prior to starting catalyst feed*, the reactor and resin bed are brought to a temperature of 85°C (col. 12, ll. 44-45) and product produced for 29 hours before temperature excursions of 1 to 2°C are observed just inside the reactor wall (*Id.*, ll.51-55). This indicates the temperature inside the patentees' reactor was maintained at 85-87°C during the production of polyethylene having a 918/1.0 density/MI couple. These temperature values are higher than 82.4°C, the temperature corresponding to a RTSE value of 4.4 for such density and MI values of the polyethylene to be produced, and lower than 88°C, the temperature corresponding to a RTSE value of 4.2 for the same product grade (per applicants' Fig. 12A). As such, Fulks et al inherently meet the temperature limitation of step 2.b. of the claimed invention.

Further, as to claim step 2.a., Fulks et al state that it is *essential* to operate the fluid bed reactor at a temperature below the sintering temperature of the polymer particles (see col. 6, ll. 53+). Therefore, although Example 1 does not report sintering

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temperature, it is plausible to infer the stated operating temperature was necessarily at least 0.5°C below the sintering temperature of the start-up bed, as claimed.

In any event, patentees' Examples 5-8 (which utilize the reactor and procedure of Examples 1-2, per col. 14, ll. 55-56) report both sintering temperature and operating temperature. In Example 5, polyethylene having a 918/1.0 density/MI is produced at an operating temperature of 85°C, well below the stated sintering temperature (104°C). In Example 7, the sintering temperature is 108°C and polyethylene of 926/12 density/MI is produced at the same operating temperature. In both runs, the 85°C reactor operating temperature is higher than the temperature corresponding to a RTSE value of 4.4 for the reported density and MI of the polyethylene product, and lower than the temperature corresponding to a RTSE value of 4.2 for the same product grade (*cf.*, applicant's Figs. 9B and 12A).

In view of the similarity between the patentees' process and the invention as described herein, there is a plausible basis for finding that the noted examples of Fulks et al fall within the scope of claim 5 and 7. In other words, the subject matter of these claims is inherently described by the reference. It follows that there is sufficient evidence in the record to justify shifting the burden to applicants to demonstrate that reference process does not inherently anticipate the subject matter of said claims. *Cf.*, *In re Spada*, 15 USPQ2d 1655 (Fed. Cir. 1990) and *In re Best*, 195 USPQ 430 (CCPA 1977).

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Claims 6, 8, 9 and 10 are deemed to avoid the prior art. The specific combination of manipulative steps recited in these claims is not disclosed, taught or suggested in any prior art documents located or identified by the examiner as of the date of this Office action.

Any inquiry concerning this communication should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMTeskin/12-28-06


FRED TESKIN
PRIMARY EXAMINER
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